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ABSTRACT

In 1993-94, Saginaw (Michigan) City School District bilingual and migrant programs operated as one program at 24 elementary schools, 4 middle schools, and both high schools. Enrollments were 633 students, primarily Hispanics, in the bilingual program and 584 students in the migrant program, with considerable overlap between enrollments. Each student received approximately 30 minutes of supplemental instruction per week on a pull-out basis. All students received supplemental reading instruction, while secondary students in the bilingual program also received instruction in basic skills, counseling, and support services. Students were assessed in reading and mathematics using the California Achievement Test. The locally adopted performance standard was improvement in grade-level posttest mean normal curve equivalent (NCE) scores compared to pretest scores. Overall, results were disappointing for both programs. The bilingual program attained the standard in reading for both basic and advanced skills at grades 3 and 5; in basic mathematics skills only at grade 2; and in advanced mathematics skills at grades 2, 4, and 8. The migrant program attained the standard in basic reading skills at grade 3, in advanced reading skills at grades 3 and 10, in basic mathematics skills at grade 2, and in advanced mathematics skills at grades 2 and 10. Recommendations for program improvement include reducing program variations among buildings, offering inservice training for regular educators, centralizing instructional sites, and improving testing strategies. Extensive tables detail pretest-posttest NCE changes by grade level. Appendices also list program enrollments by building and describe identification and eligibility procedures. (SV)

ED 375 998

EVALUATION REPORT

STATE BILINGUAL AND ECIA
CHAPTER 1 MIGRANT PRODUCT
EVALUATION REPORT

1993-94

DEPARTMENT OF EVALUATION SERVICES

- PROVIDING ASSESSMENT, PROGRAM EVALUATION AND RESEARCH SERVICES -

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SCHOOL DISTRICT OF THE CITY OF SAGINAW

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RC019832

STATE BILINGUAL AND ECIA
CHAPTER 1 MIGRANT PRODUCT
EVALUATION REPORT

1993-94

An Approved Report of the

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August, 1994

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PROGRAM DESCRIPTION

The Section 41, State Bilingual Education program and the Federal Education Consolidation and Improvement Act (E.C.I.A.) Chapter 1, Migrant Education program are programs designed to meet the special educational needs of State Bilingual and Migrant students in the School District of the City of Saginaw. These programs were operated by the school district during the 1993-94 school year.

The State Bilingual and Migrant programs operated at 24 elementaries, four middle highs, and both high schools. (See Appendix A for the number of State Bilingual and Migrant students participating by building as of October 8, 1993 and October 29, 1994 computer runs respectively.) Instruction was provided primarily on a pull-out basis, with each student receiving approximately thirty minutes of supplemental instruction per week.

STATE BILINGUAL PROGRAM

The State Bilingual program served approximately 633 students during the 1993-94 school year. The vast majority of the students were Hispanic, with a small number of Laotian students completing the program population.

Instruction was provided to K-5 students in reading. Students in grades 6-12 also received instruction in the basic skills, as well as counseling and support services.

The State Bilingual program served students whose primary language was other than English, or who came from a home environment where a language other than English was regularly used.

MIGRANT PROGRAM

The Migrant program provided supplemental reading instruction for the children of Migrant workers. A total of approximately 584 students K-12 participated in the 1993-94 program.

The Bilingual program served students whose primary language was other than English, or who came from a home environment where a language other than English was regularly used. The Migrant Education program served students whose families follow the crops or fishing industry for a livelihood, and as a result the students have experienced educational discontinuity.

ELIGIBILITY CRITERIA FOR BOTH PROGRAMS

Although the program philosophies differ, the student populations overlap because, in most circumstances, a student in the Migrant program comes from an environment where English was not the primary language spoken in the home. In view of this fact, these two programs cooperate as one, the staff serving the students were the same, and all materials and activities were shared by the programs.

A complete description of student eligibility criteria for each program is given in Appendix B. It should be noted that the State Bilingual program does have a complex set of criteria to be satisfied before a child can participate. However, the basic element in the eligibility process is collecting a Home Language Survey (HLS) from all potentially eligible students district-wide.

PROCEDURES FOR EVALUATION

Both process and product evaluations were undertaken for the State Bilingual and Migrant programs. This year's process evaluation was accomplished by a 17-item questionnaire that focused on the following: 1) combined operational aspects; 2) Migrant specific operational details from the program proposal; 3) Bilingual specific operational details from the program proposals; 4) recent actions to change program operations for State Bilingual and Migrant; and 5) future program improvement ideas related to both programs. All 9 staff members were given a questionnaire at the November 29, 1993 staff meeting. Respondents were to return the completed questionnaire no later than December 13, 1993. The results of this process surveys (N=9 or 100% of the staff) were presented in a separate report published and disseminated earlier in the year.

The product evaluation, which is the focus of this report, addresses the results of student test performance. The California Achievement Tests, fifth edition (CAT/5) for grades 1-12 served as the evaluation instruments (CTB MacMillan/McGraw, 1993). These tests were administered on a pre-test basis in the Spring, 1993 and on a post-test basis in Spring, 1994). The locally adopted performance standard used to evaluate program success was that: mean post-test normal curve equivalent (NCE) scores will evidence improvement over pre-test NCE scores. Attainment of this standard means that student rates of learning have exceeded their normal rates. The reader should bear in mind that most of these students have not learned at normal rates in the past.

Students in grades K-12 were pre- and post-tested with the CAT/5 on a spring-to-spring basis to determine their achievement in reading and mathematics as required by the funding sources. A new feature for a fourth year is

the inclusion of advanced skills for reading (reading comprehension scores) and mathematics (mathematics concepts and application scores) in the product evaluation review. These two subtests are part of the total reading or mathematics scores. As in past evaluation reports, the total reading and total mathematics scores will serve as the measure of basic skills progress. All testing was performed on-level, that is, students took a test at a level of difficulty appropriate for their grade.

PRODUCT EVALUATION RESULTS

Overall achievement results in reading and mathematics for basic as well as advanced skills will be presented for each program. Grade level results by subject area for each program will be presented and discussed. Then the combined results of the two programs will be summarized.

Where relatively few students were tested at any grade level and for a building, the results should be viewed with caution.

OVERALL ACHIEVEMENT FOR STATE BILINGUAL

Reading Basic Skills

Table 1 below contains the grade level results for the State Bilingual program in basic reading skills.

Table 1

Attainment of the Performance Standard in Total Reading

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	101	44.6	43.1	-1.5	No
3	14	33.2	34.5	1.5	Yes
4	7	38.2	30.0	-8.2	No
5	4	29.5	34.7	5.2	Yes
6	4	39.2	35.2	-4.0	No
7	6	37.5	37.1	-0.4	No
8	3	28.6	28.6	0.0	No
9	1	30.0	18.0	-12.0	No
10	1	37.0	36.0	-1.0	No
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=141.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

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Students in grades three and five demonstrated positive NCE gains of 1.5 and 5.2 NCE units respectively. Students in grades 2, 4, 6, 7, and 10 did not attain the standard. Since grades 4-10 had less than ten students per grade, the results should be viewed cautiously. Across the board, two of the nine (22.2%) grades attained the performance standard in basic reading skills.

Reading Advanced Skills

Table 2 below contains the results by grade for State Bilingual participants in advanced reading skills.

Table 2

Attainment of the Performance Standard for Reading Comprehension

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	101	45.4	41.4	-2.4	No
3	14	34.9	35.6	0.7	Yes
4	7	40.2	33.5	-6.7	No
5	4	30.2	38.5	8.3	Yes
6	4	43.5	36.5	-7.0	No
7	6	41.8	38.3	-3.5	No
8	3	39.3	31.6	-7.7	No
9	1	27.0	11.0	-16.0	No
10	1	40.0	36.0	-4.0	No
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=141.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

As can be seen in Table 2 above, students in grades three and five demonstrated positive NCE gains of 0.7 and 8.3 respectively. State Bilingual students in grades 2, 4, 6, 7, 8, 9, and 10 did not attain the standard and

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demonstrated losses between -3.5 to -10.0 NCE units in advanced reading skills. However, since less than ten students were present in grades 4-10 the majority of the above results should be viewed cautiously. Overall, two of nine (22.2%) grades attained the performance standard in advanced reading skills.

Mathematics Basic Skills

Grade level results are presented in Table 3 below.

Table 3

Attainment of the Performance Standard in Total Mathematics

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	100	39.0	42.9	3.9	Yes
3	15	45.0	41.0	-4.0	No
4	7	34.2	31.7	-2.5	No
5	3	43.0	38.0	-5.0	No
6	4	46.2	37.0	-9.2	No
7	6	41.8	37.8	-4.0	No
8	3	42.0	38.3	-3.7	No
9	1	24.0	9.0	-15.0	No
10	1	45.0	41.0	-4.0	No
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=140.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students tested met the performance standard for basic mathematics skills at the second grade. The second grade students demonstrated a positive gain of 3.9 NCE units. Results for grades 4-10 should be viewed again with

caution because each grade level had less than ten students. Overall, one of the nine (11.1%) grades attained the performance standard.

Mathematics Advanced Skills

Table 4 below presents grade level results for State Bilingual participants in advanced mathematics skills.

Table 4

Attainment of the Performance Standard for Mathematics Concepts and Applications

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	100	40.9	44.5	3.6	Yes
3	15	42.4	35.6	-6.8	No
4	7	29.1	32.2	3.1	Yes
5	3	45.6	38.3	-7.3	No
6	4	47.5	34.0	-13.5	No
7	6	42.3	35.3	-7.0	No
8	3	38.0	43.3	5.3	Yes
9	1	15.0	1.0	-14.0	No
10	1	47.0	42.0	-5.0	No
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=140.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students on the mathematics concepts and applications subtest attained the performance standard in grades two, four, and eight. The eighth graders demonstrated the greatest positive gain of 5.3 NCE units and the fourth graders showed the smallest positive gain of 3.1 NCE units. Since grades 4-10 each had less than ten students represented, the results of each should

be treated cautiously. Across the board, three of the nine (33.3%) grades attained the performance standard.

OVERALL ACHIEVEMENT FOR MIGRANT

Reading Basic Skills

Grade level results for Migrant students are presented in Table 5 below.

Table 5

Attainment of the Performance Standard in Total Reading

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	43	38.9	36.6	-2.3	No
3	38	36.8	37.1	0.3	Yes
4	33	38.9	34.3	-4.6	No
5	29	36.9	35.6	-1.3	No
6	20	41.2	34.1	-7.1	No
7	24	36.9	31.7	-5.2	No
8	10	45.6	41.2	-4.4	No
9	8	35.3	41.2	-4.2	No
10	8	31.0	29.7	-1.3	No
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=213.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students tested obtained the performance standard at third grade. The remaining grades failed to meet the standard. Since grades 9 and 10 had less than ten students each, the results of each should be viewed cautiously. Thus, one of the nine (11.1%) grades attained the performance standard for basic reading skills.

Reading Advanced Skills

Table 6 below presents grade level results for Migrant students in advanced reading skills.

Table 6

Attainment of the Performance Standard for Reading Comprehension

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	43	38.1	36.3	-1.8	No
3	38	37.6	39.1	1.5	Yes
4	33	39.5	35.3	-4.2	No
5	29	40.2	38.3	-1.9	No
6	20	43.5	34.9	-8.6	No
7	24	41.5	35.2	-6.3	No
8	10	46.4	46.2	-0.2	No
9	8	40.1	32.5	-7.6	No
10	8	31.5	33.0	1.5	Yes
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=213.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Migrant students attained the performance standard at grade three and ten. The positive gain of 1.5 NCE units occurred in the third and tenth grades. Again, since less than ten students were represented in grades 9 and 10 (with eight students each) these results should be treated cautiously. Overall, two of nine (22.2%) attained the performance standard in advanced reading skills.

Mathematics Basic Skills

Grade level results are presented in Table 7 below.

Table 7

Attainment of the Performance Standard in Total Mathematics

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	43	28.2	35.7	7.5	Yes
3	39	38.5	37.7	-0.8	No
4	33	42.6	38.0	-4.6	No
5	29	48.0	40.7	-7.3	No
6	18	48.5	42.6	-5.9	No
7	23	41.3	36.4	-4.9	No
8	9	42.6	40.0	-2.6	No
9	8	45.1	40.7	-4.4	No
10	9	34.8	30.4	-4.4	No
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=211.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Students tested obtained the performance standard at second grade. Again, since less than ten students are present at grades 8-10, these results should be viewed cautiously. Across the board, one of nine grades (11.1%) attained the performance standard.

Mathematics Advanced Skills

Grade level results for Migrant students are presented in Table 8 below in the area of advanced mathematics skills.

Table 8

Attainment of the Performance Standard for Mathematics Concepts and Applications

Grade	Number of Students Tested	Normal Curve Equivalent			Performance Standard[a] Attained
		Pre Mean	Post Mean	Mean Gain/ Loss	
2	43	33.2	38.6	5.4	Yes
3	39	39.8	32.8	-7.0	No
4	33	35.6	37.5	1.9	Yes
5	29	45.1	39.9	-5.2	No
6	18	46.9	39.6	-7.3	No
7	23	40.6	33.6	-7.0	No
8	9	43.2	40.2	-3.0	No
9	8	44.8	38.8	-6.0	No
10	9	32.0	33.4	1.4	Yes
11	0	-	-	-	-
12	0	-	-	-	-

Note. N=211.

[a]Post-test normal curve equivalent (NCE) score will evidence improvement over pre-test NCE score.

Migrant participants obtained the performance standard in second, fourth, and tenth grades. Since less than 10 students were pre- and post-tested at grades 8-10, these results must be viewed cautiously. Overall, three of the nine (33.3%) grades attained the performance standard in the advanced mathematics.

OVERALL ACHIEVEMENT FOR STATE BILINGUAL AND MIGRANT PROGRAMS

State Bilingual - attained the standard in Reading (both basic and advanced skills) at grades 3 and 5. For mathematics, the basic skills standard was attained only at grade 2 while the advanced skills were attained at grades 2, 4, and 8.

Migrant - basic skills were attained in Reading only in grade 3 and advanced skills were attained in grades 3 and 10. Mathematics basic skills were attained at grade 2 while advanced skills were attained at grades 2 and 10.

Overall, this represents disappointing results for both programs.

Table 9

Attainment Status[a] for Basic and Advanced Skills in Reading and Mathematics by Program

GRADE LEVEL	STATE BILINGUAL				MIGRANT			
	Reading		Mathematics		Reading		Mathematics	
	Basic	Advanced	Basic	Advanced	Basic	Advanced	Basic	Advanced
2	No	No	Yes	Yes	No	No	Yes	Yes
3	Yes	Yes	No	No	Yes	Yes	No	No
4	No	No	No	Yes	No	No	No	No
5	Yes	Yes	No	No	No	No	No	No
6	No	No	No	No	No	No	No	No
7	No	No	No	No	No	No	No	No
8	No	No	No	Yes	No	No	No	No
9	No	No	No	No	No	No	No	No
10	No	No	No	No	No	Yes	No	Yes
11	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-
Total[b]								
Yes	2 (22.2%)	2 (22.2%)	1 (11.1%)	3 (33.3%)	1 (11.1%)	2 (22.2%)	1 (11.1%)	3 (33.3%)
No	7 (77.8%)	7 (77.7%)	8 (88.9%)	6 (66.7%)	8 (88.9%)	7 (77.7%)	8 (88.9%)	6 (66.7%)

[a]A "yes" attainment status means the average post-test NCE score was greater than the average pre-test NCE score.

[b]Total frequency distribution of attainment of performance by subject/skill, program, and grade.

The achievement results, which have been presented, were also tabulated by building. These data are presented in Appendix C.

SUMMARY

The 1993-94 school year was the fifteenth year that students in the State Bilingual and Migrant programs were assessed in reading and mathematics, using a norm referenced test. The California Achievement Test, fifth edition (CAT/5) normed in the Spring of 1991 was used for program evaluation purposes.

The locally adopted performance standard for the overall program was that grade level post-test mean NCE scores would evidence improvement over pre-test scores.

The State Bilingual results show a **decrease** from the previous year in the percent of grade levels meeting the performance standard in **both reading** and **mathematics.** For the State Bilingual program the 27.8% points decrease in reading was from 50.0% meeting the same standard last year (8 of 16 observations) to 22.2% meeting the same performance standard this year (4 of 18 observations). The decrease of 52.8 points in mathematics was from 75.0% (12 of 16 observations) to 22.2% (4 of 18 observations).

The Migrant results show a **decrease** from the previous year in the percent of grade levels meeting the performance standard in both **reading** and **mathematics.** The 8.3% points decrease in reading came about from 4 of 16 observations (25.0%) meeting the standard last year to 3 of 18 observations (16.7%) meeting the same standard this year. The 40.3% points decrease in mathematics was from 62.5% (10 of 16 observations) meeting the standard last year to 22.2% (4 of 18 observations) meeting the same standard this year.

The recommendations that follow are based upon process and product evaluation results.

RECOMMENDATIONS

The recommendations that follow are based on this year's process and product evaluations and are intended to help bring about State Bilingual/Migrant program improvements in the following school year.

The recommended ideas and techniques offered below stem from a perceived problem and are just one of many ways to improve the performance of the program. As solutions are sought for optimum program operations, a dialogue/discussion should be undertaken to determine the best and most workable way to solve the perceived problem. The staff and evaluator should be brought into these discussions as has been the practice in the past so that all involved feel part of the proposed new operation of the program.

1. Reduce variations in the program between building sites by having the supervisor and State Bilingual/ Migrant staff analyze the building results presented in Appendix C. Hopefully, a plan can be formulated to reduce (or control) these variations in program impact.

2. A set of district supported inservice offerings to regular education staff should be continued relative to the special needs of bilingual/migrant students. Support from curriculum heads (assistant superintendents for elementary, secondary, special and adult and continuation education) needs to be generated to increase the attendance of all teaching staff. These training sessions to be successful must enhance the awareness of staff regarding LEP students, increase the strategic strategies available to deal effectively with multi-cultural issues in student learning, allow teachers a greater understanding of cultural differences and how these difficulties may be used to achieve greater academic attainment, etc.

3. Due to space concerns relative to providing an adequate instructional program, small number of students by grade at various school sites and the limited number of State Bilingual/Migrant staff members, it may be more feasible if centralized sites for State Bilingual/Migrant services at the elementary, middle, and high school levels are established. These centralized sites would hopefully use site-based decision making where one of their major priorities would be greater academic achievement in LEP, Migrant, and minority students from a multi-cultural background. Hopefully, school-wide Chapter 1 funds and general fund support would be allocated to these sites to help alleviate the inadequate resources to carry out the mission of Bilingual/Migrant education and provide much needed assistance to disadvantaged language minority students.

4. Added efforts are needed to pre- and post-test students who are eligible and served by the program. The program supervisor (in consultation with the evaluation department) should address this situation and develop strategies to help alleviate problems in this area.

BIBLIOGRAPHY

CTB MacMillan/McGraw-Hill (1993). California Achievement Tests, Fifth Edition (CAT/5). CTB: Monterey, CA.

APPENDICES

APPENDIX A

1993-94 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total State Bilingual**

COUNT OF PROGRAM PARTICIPANTS

	GRADE LEVEL						
Building	K	1	2	3	4	5	Total
E. Baillie	2	1	0	0	1	0	4
Coulter	2	6	2	0	2	1	13
Emerson	11	5	7	0	0	1	24
Fuerbringer	4	7	6	0	0	0	17
N. Haley	4	12	5	1	0	0	22
Handley	1	7	7	0	0	0	15
Heavenrich	5	0	2	0	0	1	8
Herig	11	15	15	1	0	0	42
Houghton	2	10	1	0	0	0	13
Jerome	19	21	8	0	1	0	49
Jones	5	2	3	1	0	0	11
Kempton	5	7	8	0	0	0	20
Longfellow	14	20	6	1	0	1	42
Longstreet	2	4	1	1	0	0	8
J. Loomis	11	12	12	0	0	0	35
Merrill Park	12	10	8	2	2	0	34
C. Miller	4	5	10	2	2	1	24
J. Moore	14	16	13	1	1	0	45
Morley	1	2	1	0	0	0	4
J. Rouse	14	26	12	1	2	1	56
Salina	0	2	1	2	0	0	5
Stone	16	22	6	0	1	0	45
Webber Ele.	18	33	8	5	1	0	65
Zilwaukee	2	2	1	0	0	0	5
TOTAL	179	247	143	18	13	6	606

*Count as of October 8, 1993 computer run that included all participants.

APPENDIX A

1993-94 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total State Bilingual**

COUNT OF PROGRAM PARTICIPANTS

	GRADE LEVEL			
Building	6	7	8	Total
Central Middle	2	1	1	4
North Middle	1	2	2	5
South Middle	3	2	1	6
Webber Middle	3	1	1	5
TOTAL	9	6	5	20

*Count as of October 3, 1993 computer run that included all participants.

1993-94 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total State Bilingual**

COUNT OF PROGRAM PARTICIPANTS

	GRADE LEVEL				
Building	9	10	11	12	Total
Arthur Hill	1	0	0	0	1
Saginaw High	2	4	0	0	6
TOTAL	3	4	0	0	7

*Count as of October 8, 1993 computer run that included all participants.

APPENDIX A

1993-94 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: **Total Migrant**

COUNT OF PROGRAM PARTICIPANTS

	GRADE LEVEL							
Building	PK	K	1	2	3	4	5	Total
E. Baillie	0	0	2	0	1	1	2	6
Coulter	1	1	1	1	1	0	2	7
Emerson	2	4	4	6	5	1	2	24
Fuerbringer	1	1	2	1	1	0	0	6
N. Haley	4	3	3	5	4	4	4	27
Handley	0	0	1	1	0	0	0	2
Heavenrich	0	1	0	1	1	0	1	4
Herig	2	4	1	4	1	4	1	17
Houghton	1	0	5	0	2	3	1	12
Jerome	1	1	1	1	0	2	1	7
Jones	1	2	2	1	1	0	1	8
Kempton	0	0	0	0	0	0	0	0
Longfellow	1	3	5	2	3	2	5	21
Longstreet	2	2	2	2	2	2	0	12
J. Loomis	0	2	7	9	2	5	1	26
Merrill Park	0	1	1	0	2	1	1	6
C. Miller	0	3	1	1	1	5	3	14
J. Moore	4	3	4	2	5	1	3	22
Morley	0	0	0	0	3	1	0	4
J. Rouse	4	6	13	8	3	6	2	42
Salina	0	0	0	1	1	0	0	2
Stone	3	4	5	4	6	5	4	31
Webber Ele.	3	6	18	5	7	14	6	59
Zilwaukee	0	1	1	0	0	0	0	2
TOTAL	30	48	79	55	52	57	40	361

*Count as of October 29, 1993 computer run that included all participants.

APPENDIX A

1993-94 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: Total Migrant

COUNT OF PROGRAM PARTICIPANTS

	GRADE LEVEL			
Building	6	7	8	Total
Central Middle	6	6	2	14
Handley	1	0	0	1
North Middle	8	11	10	29
South Middle	4	12	16	32
Webber Middle	12	10	11	33
TOTAL	31	39	39	109

*Count as of October 29, 1993 computer run that included all participants.

1993-94 COUNT OF PROGRAM PARTICIPANTS*

PROGRAM: Total Migrant

COUNT OF PROGRAM PARTICIPANTS

	GRADE LEVEL				
Building	9	10	11	12	Total
Arthur Hill	18	24	14	12	68
Saginaw High	19	19	3	5	46
TOTAL	37	43	17	17	114

*Count as of October 29, 1993 computer run that included all participants.

APPENDIX B

IDENTIFICATION AND ELIGIBILITY PROCEDURES FOR STATE BILINGUAL AND MIGRANT STUDENTS

State Bilingual

The first step in this procedure is that of student identification. Potential students are identified by means of a Home Language Survey (HLS). The survey is designed to determine if: 1) the native or first language is other than English or; 2) a language other than English is regularly used in the student's home or environment. Students in grades K-2 are eligible for the program on the basis of the HLS and parental permission. Students in grades 3-12 go through a more extensive eligibility system which is described below.

In addition to the HLS, students in grades 3-12 are also tested on one or two instruments for program eligibility. Students, who are new or have never been in the Bilingual program, are tested with a test of oral English proficiency. In Saginaw, the Language Assessment Battery (LAB) test is used for this purpose and is usually administered in the fall of each year. If the student scores at or below the 40th percentile, then the student is eligible. However, if the student scores above the 40th percentile, then the student is given an English reading achievement test. The California Achievement Test (CAT) is used for this purpose. If the student scores at or below the 40th percentile, then the student is eligible for the program. Finally, parental permission is needed for program participation.

APPENDIX B

Students in grades 3-12, who were in the Bilingual program the previous year, go through a somewhat different eligibility procedure. These students are subject to a program exit criterion which is based on the student's post-test English reading achievement score. If the student's post-test score remains at or below the 40th percentile, the student is ineligible. However, eligibility is based on either the oral English language proficiency test score or the English reading achievement test score. In addition, a score that is used for eligibility is to be the result of a test administration no earlier than the spring of the preceding school year. It is, therefore, possible for a student to exceed the 40th percentile on the reading achievement test and become eligible when retested with the oral English proficiency test. The final eligibility requirement is that students:

> ... shall be enrolled in the Bilingual instruction program for three years or until the child achieves a level of proficiency in English language skills sufficient to receive an equal educational opportunity in the regular school program, whichever comes first.[1]

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[1] Michigan Department of Education. (1979). Administrator's Manual for Bilingual Education Programs in Michigan 1979-80. Lansing: Bilingual Education Office, p. 4.

APPENDIX B

Migrant

Eligibility for the Migrant program is based solely on whether a student is one of three Migrant designations. The district does, however, attempt to serve those students with the greatest academic need, and nearly all Migrant students scored at or below the 40th percentile on an English reading achievement test.

The three designations of Migrant students are:

1) Interstate: Student has moved within the last year across state boundaries.

2) Intrastate: Student has moved within the last year across school district boundaries within the state.

3) Five Year Settled Out: Student has remained within a school district for at least five years.

APPENDIX B

PROCEDURES FOR THE IDENTIFICATION OF STUDENTS ELIGIBLE FOR BILINGUAL EDUCATION FUNDING SUMMARY FLOW CHART

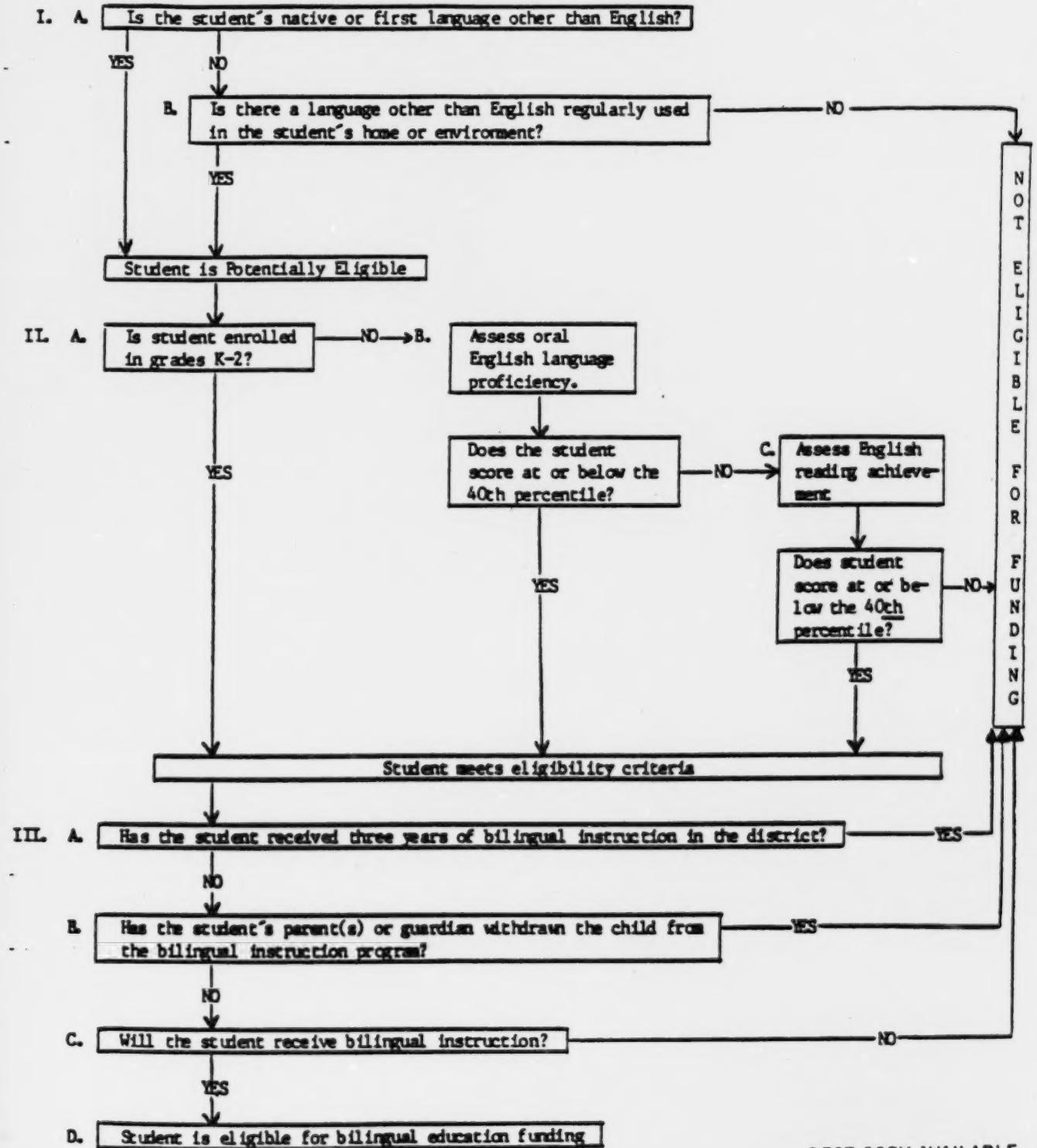
I. A. Is the student's native or first language other than English?
YES
NO
B. Is there a language other than English regularly used in the student's home or environment?
NO
YES
Student is Potentially Eligible
II. A. Is student enrolled in grades K-2?
NO → B.
Assess oral English language proficiency.
Does the student score at or below the 40th percentile?
NO
C. Assess English reading achievement
Does student score at or below the 40th percentile?
NO
YES
YES
YES
Student meets eligibility criteria
III. A. Has the student received three years of bilingual instruction in the district?
YES
NO
B. Has the student's parent(s) or guardian withdrawn the child from the bilingual instruction program?
YES
NO
C. Will the student receive bilingual instruction?
NO
YES
D. Student is eligible for bilingual education funding
NOT ELIGIBLE FOR FUNDING

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Table C-1

Attainment Status For State Bilingual Pupils In Basic Skills Total Reading

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	36.0	47.0	11.0	0				0				0				0			
Coulter	0				1	21.0	74.0	53.0	2	28.0	37.0	9.0	0				0				1	30.0	21.0	-9.0	1	24.0	29.0	5.0
Emerson	0				0				3	42.3	33.3	-9.0	8	28.6	30.8	2.2	0				0				0			
Fuerbringer	0				0				6	30.0	48.0	18.0	6	49.1	45.3	-3.8	0				0				0			
Haley	0				0				10	31.6	45.1	13.5	2	57.5	49.5	-8.0	0				0				0			
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	28.0	26.0	-2.0	0				0				0			
Herig	0				0				8	32.8	44.1	11.3	13	41.8	38.5	-3.3	2	31.0	55.0	24.0	0				0			
Houghton	0				0				6	34.6	42.1	7.5	1	43.0	47.0	4.0	0				0				0			
Jerome	0				6	20.8	34.1	13.3	10	62.4	48.6	-13.8	5	60.6	56.8	-3.8	0				0				0			
Jones	0				0				4	32.7	55.2	22.5	0				0				0				1	39.0	31.0	-8.0
Kempton	0				0				7	50.2	56.2	6.0	8	53.5	50.2	-3.3	0				0				0			
Longfellow	0				6	30.5	38.0	7.5	13	38.2	50.9	12.7	4	29.7	42.7	13.0	0				0				0			
Longstreet	0				1	5.0	18.0	13.0	2	28.5	2.0	-26.5	1	47.0	64.0	17.0	1	33.0	23.0	-10.0	0				0			
Loomis	0				0				5	29.4	35.6	6.2	6	47.3	40.0	-7.3	0				0				0			
M. Park	1	17.0	19.0	2.0	0				8	27.8	35.1	7.3	6	27.3	20.3	-7.0	2	31.0	34.5	3.5	1	69.0	36.0	-33.0	0			
C. Miller	0				0				5	35.6	55.4	19.8	11	49.0	44.4	-4.6	2	32.5	32.0	-0.5	2	29.0	31.5	2.5	1	25.0	29.0	4.0
J. Moore	1	1.0	31.0	30.0	0				11	29.9	34.6	4.7	9	49.5	47.3	-2.2	1	42.0	29.0	-13.0	0				0			
Morley	0				0				1	17.0	43.0	26.0	1	59.0	59.0	0.0	0				0				0			
J. Rouse	0				10	23.1	38.4	15.3	15	38.7	38.6	-0.1	7	53.2	40.0	-13.2	2	40.0	31.5	-8.5	0				0			
Salina	0				0				2	29.5	15.0	-14.5	1	50.0	42.0	-8.0	2	27.5	18.5	-9.0	0				0			
Stone	0				3	23.3	42.0	18.7	15	32.5	43.4	10.9	4	46.0	46.5	0.5	1	29.0	36.0	7.0	1	31.0	27.0	-4.0	0			
Webber El.	0				1	12.0	34.0	22.0	16	33.5	34.0	0.5	6	44.6	48.3	3.7	3	41.6	42.6	1.0	0				1	34.0	43.0	9.0
Zilwaukee	0				0				4	44.2	49.5	5.3	1	39.0	36.0	-3.0	0				0				0			
TOTAL	2	9.0	25.0	16.0	28	23.4	38.3	14.9	154	36.1	41.7	5.6	101	44.6	43.1	-1.5	14	33.2	34.7	1.5	7	38.2	30.0	-8.2	4	29.5	34.7	5.2

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Table C-2

Attainment Status For State Bilingual Pupils In Advanced Skills Reading Comprehension

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	42.0	43.0	1.0	0				0				0				0			
Coulter	0				1	16.0	69.0	53.0	2	27.5	23.5	-4.0	0				0				1	38.0	29.0	-9.0	1	28.0	25.0	-3.0
Emerson	0				0				3	51.3	32.0	-19.3	8	27.7	32.1	4.4	0				0				0			
Fuerbringer	0				0				6	30.3	50.1	19.8	6	51.6	43.8	-7.8	0				0				0			
Haley	0				0				10	29.6	42.8	13.2	2	55.5	50.0	-5.5	0				0				0			
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	11.0	23.0	12.0	0				0				0			
Herig	0				0				8	32.6	44.6	12.0	13	42.7	41.1	-1.6	2	27.5	50.0	22.5	0				0			
Houghton	0				0				6	33.6	43.6	10.0	1	32.0	49.0	17.0	0				0				0			
Jerome	0				6	21.0	35.3	14.3	10	57.4	46.3	-11.1	5	56.6	58.6	2.0	0				0				0			
Jones	0				0				4	36.7	46.2	9.5	0				0				0				1	35.0	38.0	3.0
Kempton	0				0				7	54.5	53.8	-0.7	8	50.5	54.1	3.6	0				0				0			
Longfellow	0				6	31.8	37.6	5.8	13	39.9	51.3	11.4	4	29.0	43.5	14.5	0				0				0			
Longstreet	0				1	4.0	24.0	20.0	2	36.5	1.0	-35.5	1	43.0	61.0	18.0	1	33.0	17.0	-16.0	0				0			
Loomis	0				0				5	31.8	35.0	3.2	6	48.1	37.8	-10.3	0				0				0			
M. Park	1	20.0	24.0	4.0	0				8	28.2	37.1	8.9	6	26.1	20.0	-6.1	2	33.0	39.0	6.0	1	72.0	34.0	-38.0	0			
C. Miller	0				0				5	38.0	57.8	19.8	11	49.6	44.0	-5.6	2	34.5	31.0	-3.5	2	31.0	35.5	4.5	1	27.0	43.0	16.0
J. Moore	1	1.0	24.0	23.0	0				11	31.0	36.1	5.1	9	50.7	44.7	-6.0	1	45.0	19.0	-26.0	0				0			
Morley	0				0				1	24.0	45.0	21.0	1	61.0	47.0	-14.0	0				0				0			
J. Rouse	0				10	22.5	38.2	15.7	15	37.8	37.6	-0.2	7	54.4	38.8	-15.6	2	39.5	35.0	-4.5	0				0			
Salina	0				0				2	35.5	17.5	-18.0	1	54.0	38.0	-16.0	2	27.0	18.5	-8.5	0				0			
Stone	0				3	27.3	47.3	20.0	15	34.0	43.7	9.7	4	47.7	44.5	-3.2	1	27.0	38.0	11.0	1	31.0	31.0	0.0	0			
Webber El.	0				1	12.0	40.0	28.0	16	35.4	35.0	-0.4	6	48.0	44.5	-3.5	3	44.3	46.0	1.7	0				1	27.0	55.0	28.0
Zilwaukee	0				0				4	40.5	50.5	10.0	1	36.0	34.0	-2.0	0				0				0			
TOTAL	2	10.5	24.0	13.5	28	23.1	38.9	15.8	154	37.1	42.2	5.1	101	45.4	41.4	-4.0	14	34.9	35.6	0.7	7	40.2	33.5	-6.7	4	30.2	38.5	8.3

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Table C-3

Attainment Status For State Bilingual Pupils In Basic Skills Total Mathematics

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	-	1.0	-	0				0				0				0			
Coulter	0				1	-	-	-	2	-	44.5	-	0				0				1	53.0	37.0	-16.0	0			
Emerson	0				0				3	-	39.3	-	8	25.1	36.3	11.2	0				0				0			
Fuerbringer	0				0				6	-	27.5	-	6	36.8	35.6	-1.2	0				0				0			
Haley	0				0				10	32.0	52.0	20.0	2	37.5	38.0	0.5	0				0				0			
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	36.0	28.0	-8.0	0				0				0			
Herig	0				0				8	-	38.0	-	13	32.7	39.4	6.7	2	45.5	61.5	16.0	0				0			
Houghton	0				0				6	19.0	64.1	45.1	1	41.0	38.0	-3.0	0				0				0			
Jerome	0				6	-	-	-	10	-	49.6	-	5	57.0	61.8	4.8	0				0				0			
Jones	0				0				4	-	62.6	-	0				1	49.0	70.0	21.0	0				1	38.0	30.0	-8.0
Kempton	0				0				7	18.5	39.5	21.0	8	51.0	50.2	-0.8	0				0				0			
Longfellow	0				6	-	-	-	13	14.0	48.3	34.3	4	38.0	32.5	-5.5	0				0				0			
Longstreet	0				1	-	-	-	2	-	23.0	-	1	11.0	41.0	30.0	1	26.0	22.0	-4.0	0				0			
Loomis	0				0				5	30.0	35.8	5.8	6	36.1	41.0	4.9	0				0				0			
M. Park	1	-	-	-	0				8	5.0	39.5	34.5	6	37.0	38.8	1.8	2	49.5	33.0	-16.5	1	36.0	27.0	-9.0	0			
C. Miller	0				0				5	26.0	52.0	26.0	10	57.1	45.5	-11.6	2	48.5	37.0	-11.5	2	34.5	44.0	9.5	1	38.0	35.0	-3.0
J. Moore	1	-	-	-	0				11	27.0	42.2	15.2	9	33.2	35.5	2.3	1	47.0	-	-	0				0			
Morley	0				0				1	-	50.0	-	1	74.0	77.0	3.0	0				0				0			
J. Rouse	0				10	-	-	-	14	24.6	37.1	13.1	7	39.1	53.4	14.3	0				2	35.5	26.0	-9.5	0			
Salina	0				0				2	-	13.0	-	1	35.0	38.0	3.0	2	27.5	14.0	-13.5	0				0			
Stone	0				3	-	-	-	15	-	44.0	-	4	33.5	44.2	10.7	1	65.0	49.0	-16.0	1	11.0	18.0	7.0	0			
Webber El.	0				1	-	-	-	17	-	36.7	-	6	30.6	47.3	16.7	3	48.6	47.3	-1.3	0				1	53.0	49.0	-4.0
Milwaukee	0				0				4	-	27.0	-	1	38.0	44.0	6.0	0				0				0			
TOTAL	2	-	-	-	28	-	-	-	154	21.4	41.8	20.4	100	39.0	42.9	3.9	15	45.0	41.0	-4.0	7	34.2	31.7	-2.5	3	43.0	38.0	-5.0

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Table C-4

Attainment Status For State Bilingual Pupils In Advanced Skills Mathematics Concepts And Applications

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	36.0	1.0	-35.0	0				0				0				0			
Coulter	0				1	36.0	62.0	26.0	2	41.0	45.0	4.0	0				0				1	42.0	34.0	-8.0	0			
Emerson	0				0				3	47.3	42.6	-4.6	8	28.1	36.3	8.2	0				0				0			
Fuerbringer	0				0				6	33.8	32.6	-1.2	6	42.3	41.5	-0.8	0				0				0			
Haley	0				0				10	42.4	48.5	6.1	2	44.6	36.0	-8.0	0				0				0			
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	30.0	29.0	-1.0	0				0				0			
Herig	0				0				8	32.6	39.6	7.0	13	33.0	43.2	10.2	2	32.0	61.5	29.5	0				0			
Houghton	0				0				6	35.1	58.6	23.5	1	42.0	43.0	1.0	0				0				0			
Jerome	0				6	17.3	47.1	29.8	10	61.4	51.1	-10.3	5	49.0	64.6	15.6	0				0				0			
Jones	0				0				8	47.7	53.5	5.8	0				1	43.0	59.0	16.0	0				1	80.0	29.0	-21.0
Kempton	0				0				7	39.8	47.8	8.0	8	48.3	55.6	7.3	0				0				0			
Longfellow	0				6	19.3	58.8	39.5	13	37.0	45.6	8.6	4	43.5	37.2	-6.3	0				0				0			
Longstreet	0				1	1.0	1.0	0.0	2	20.5	25.0	4.5	1	9.0	29.0	20.0	1	29.0	18.0	-11.0	0				0			
Loomis	0				0				5	25.6	41.4	15.8	6	42.5	45.8	3.3	0				0				0			
M. Park	1	28.0	32.0	4.0	0				8	31.5	40.3	5.2	6	36.3	35.8	-0.5	2	45.0	12.0	-33.0	1	35.0	32.0	-3.0	0			
C. Miller	0				0				5	37.0	45.2	8.2	10	53.9	39.3	-14.6	2	42.5	36.0	-6.5	2	25.5	43.0	17.5	1	34.0	33.0	-1.0
J. Moore	1	1.0	42.0	41.0	0				11	38.1	41.3	3.2	9	39.3	40.4	1.1	1	62.0	27.0	-35.0	0				0			
Morley	0				0				1	28.0	55.0	27.0	1	70.0	74.0	4.0	0				0				0			
J. Rouse	0				10	17.1	29.9	12.8	14	37.1	45.5	8.3	7	44.7	55.4	10.7	0				2	31.0	26.5	-4.5	0			
Salina	0				0				2	21.5	21.5	0.0	1	33.0	45.0	12.0	2	30.0	19.5	-10.5	0				0			
Stone	0				3	10.3	39.0	28.7	15	41.2	39.4	-1.8	4	42.2	44.7	2.5	1	58.0	44.0	-14.0	1	14.0	21.0	7.0	0			
Webber El.	0				1	1.0	37.0	36.0	17	39.8	36.7	-3.1	6	34.5	45.1	10.6	3	48.6	43.0	-5.6	0				1	53.0	53.0	0.0
Zilwaukee	0				0				4	36.7	55.7	19.0	1	49.0	55.0	6.0	0				0				0			
TOTAL	2	14.5	37.0	22.5	28	16.4	41.1	24.7	154	39.0	43.2	4.2	100	40.9	44.5	3.6	15	42.4	35.6	-6.8	7	29.1	32.2	3.1	3	45.6	38.3	-7.3

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APPENDIX C

Table C-5

Attainment Status For State Bilingual Pupils In Basic Skills Total Reading And Advanced Skills Reading Comprehension

Subject/ School	GRADE 6 Normal Curve Equivalents				GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL READING												
Central	1	32.0	25.0	-7.0	1	32.0	35.0	5.0	0			
North	1	42.0	36.0	-6.0	2	34.0	36.5	2.5	1	22.0	19.0	-3.0
South	1	36.0	45.0	9.0	2	42.5	43.0	0.5	1	27.0	32.0	5.0
Webber	1	47.0	35.0	-12.0	1	40.0	27.0	-13.0	1	37.0	35.0	-2.0
System	4	39.2	35.2	-4.0	6	37.5	37.1	-0.4	3	28.6	28.6	0.0
ADVANCED SKILLS												
Central	1	38.0	34.0	-4.0	1	41.0	40.0	-1.0	0			
North	1	46.0	38.0	-8.0	2	35.0	38.0	3.0	1	35.0	27.0	-8.0
South	1	40.0	37.0	-3.0	2	48.0	47.0	-1.0	1	42.0	38.0	-4.0
Webber	1	50.0	37.0	-13.0	1	44.0	20.0	-24.0	1	41.0	30.0	-11.0
System	4	43.5	36.5	-7.0	6	41.8	38.3	-3.5	3	39.3	31.6	-7.7

APPENDIX C

Table C-6

Attainment Status For State Bilingual Pupils In Basic Skills Total Mathematics And Advanced Skills Mathematics Concepts And Applications

Subject/ School	GRADE 6 Normal Curve Equivalents				GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Central	1	32.0	30.0	-2.0	1	49.0	59.0	10.0	0			
North	1	60.0	46.0	-14.0	2	46.5	35.0	-11.5	1	26.0	23.0	-3.0
South	1	40.0	33.0	-7.0	2	36.0	35.0	-1.0	1	64.0	56.0	-8.0
Webber	1	53.0	39.0	-14.0	1	37.0	28.0	-9.0	1	36.0	36.0	0.0
System	4	46.2	37.0	-9.2	6	41.8	37.8	-4.0	3	42.0	38.3	-3.7
CONCEPTS AND APPLICATIONS												
Central	1	38.0	29.0	-9.0	1	52.0	60.0	8.0	0			
North	1	56.0	33.0	-23.0	2	48.0	31.5	-16.5	1	24.0	38.0	14.0
South	1	44.0	39.0	-5.0	2	32.5	31.0	-1.5	1	58.0	61.0	3.0
Webber	1	52.0	35.0	-17.0	1	41.0	27.0	-14.0	1	32.0	31.0	-1.0
System	4	47.5	39.0	-13.5	6	42.3	35.3	-7.0	3	38.0	43.3	5.3

Table C-7

Attainment Status For State Bilingual Pupils In Basic Skills Total Reading And Advanced Skills Reading Comprehension

Subject/ School	GRADE 9 Normal Curve Equivalents				GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL READING																
Arthur Hill	0				0				0				0			
Saginaw High	1	30.0	18.0	-12.0	1	37.0	36.0	-1.0	0				0			
System	1	30.0	18.0	-12.0	1	37.0	36.0	-1.0	0				0			
READING COMPREHENSION																
Arthur Hill	0				0				0				0			
Saginaw High	1	27.0	11.0	-16.0	1	40.0	36.0	-4.0	0				0			
System	1	27.0	11.0	-16.0	1	40.0	36.0	-4.0	0				0			

Table C-8

Attainment Status For State Bilingual Pupils In Basic Skills Total Mathematics and Advanced Skills Mathematics Concepts And Applications

Subject/ School	GRADE 9 Normal Curve Equivalents				GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS																
Arthur Hill	0				0				0				0			
Saginaw High	1	24.0	9.0	-15.0	1	45.0	41.0	-4.0	0				0			
System	1	24.0	9.0	-15.0	1	45.0	41.0	-4.0	0				0			
CONCEPTS AND APPLICATIONS																
Arthur Hill	0				0				0				0			
Saginaw High	1	15.0	1.0	-14.0	1	47.0	42.0	-5.0	0				0			
System	1	15.0	1.0	-14.0	1	47.0	42.0	-5.0	0				0			

Table C-9

Attainment Status For Migrant Pupils In Basic Skills Total Reading

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	48.0	4.0	-44.0	0				0				0				1	26.0	26.0	0.0
Coulter	0				0				1	35.0	36.0	1.0	2	33.0	31.5	-1.5	2	45.0	47.0	2.0	1	26.0	16.0	-10.0	2	52.0	61.0	9.0
Emerson	0				0				3	42.3	33.3	-9.0	6	34.0	34.3	0.3	3	41.6	58.0	16.4	1	17.0	24.0	7.0	1	36.0	32.0	-4.0
Fuerbringer	0				0				2	30.0	43.5	13.5	1	56.0	66.0	10.0	1	62.0	81.0	19.0	0				0			
Haley	0				0				2	14.0	34.5	20.5	4	41.5	41.7	0.2	3	37.6	32.3	-5.3	2	39.0	34.5	-4.5	1	44.0	39.0	-5.0
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	28.0	26.0	-2.0	1	3.0	3.0	0.0	0				0			
Herig	0				0				1	24.0	41.0	17.0	3	29.6	30.0	0.4	2	16.5	48.0	31.5	3	38.0	32.0	-6.0	1	37.0	36.0	-1.0
Houghton	0				0				2	22.5	41.5	19.0	0				2	21.5	20.5	-1.0	1	32.0	22.0	-10.0	0			
Jerome	0				1	1.0	4.0	3.0	0				0				0				1	49.0	45.0	-4.0	1	37.0	45.0	8.0
Jones	0				0				2	33.5	50.5	17.0	1	48.0	46.0	-2.0	0				0				1	28.0	32.0	4.0
Kempton	0				0				0				0				0				0				0			
Longfellow	0				2	31.5	42.0	10.5	4	40.0	49.5	9.5	1	1.0	25.0	24.0	2	32.5	35.5	3.0	0				2	27.0	26.5	-0.5
Longstreet	0				1	20.0	35.0	15.0	1	22.0	25.0	3.0	2	51.5	41.5	-10.0	3	38.6	27.0	-11.6	2	46.0	37.5	-8.5	1	18.0	32.0	14.0
Loomis	0				0				2	39.0	25.5	-13.5	8	40.1	31.8	-8.3	2	49.0	37.5	-11.5	4	36.2	37.7	1.5	1	30.0	28.0	-2.0
M. Park	1	17.0	19.0	2.0	0				1	1.0	32.0	31.0	0				2	31.0	34.5	3.5	0				0			
E. Miller	0				0				1	39.0	65.0	26.0	1	30.0	26.0	-4.0	1	32.0	28.0	-4.0	2	39.5	33.5	-8.0	3	33.3	33.3	0.0
J. Moore	0				0				3	20.3	31.6	11.3	2	24.0	29.5	5.5	5	34.4	33.4	-1.0	0				2	50.0	45.5	-4.5
Morley	0				0				0				0				0				1	83.0	62.0	-21.0	0			
J. Rouse	0				4	31.0	42.7	11.7	4	31.0	42.5	11.5	5	54.6	43.6	-11.0	1	11.0	9.0	-2.0	5	34.6	35.2	0.6	2	45.0	38.0	-7.0
Salina	0				0				0				2	38.5	36.0	-2.5	0				0				0			
Stone	0				0				5	34.8	48.4	13.0	2	37.5	50.5	13.0	4	48.7	40.7	-8.0	3	41.6	34.0	-7.6	3	37.6	29.3	-8.3
Webber El.	0				1	12.0	34.0	22.0	10	37.1	34.1	-3.0	2	44.5	35.5	-9.0	4	44.7	40.2	-4.5	7	39.0	32.7	-6.3	7	36.4	33.5	-2.9
Zilwaukee	0				0				1	34.0	31.0	-3.0	0				0				0				0			
TOTAL	1	17.0	19.0	2.0	9	24.4	36.4	12.0	46	32.5	38.5	6.0	43	38.9	36.6	-2.3	38	36.8	37.1	0.3	33	38.9	34.3	-4.6	29	36.9	35.6	-1.3

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Table C-10

Attainment Status For Migrant Pupils In Advanced Skills Reading Comprehension

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	53.0	1.0	-52.0	0				0				0				1	24.0	30.0	6.0
Coulter	0				0				1	35.0	29.0	-6.0	2	34.0	37.0	3.0	2	41.0	47.5	6.5	1	28.0	16.0	-12.0	2	57.5	62.5	5.0
Emerson	0				0				3	51.3	32.0	-19.3	6	34.3	31.4	-0.2	3	46.6	53.6	7.0	1	1.0	27.0	26.0	1	40.0	30.0	-10.0
Fuerbringer	0				0				2	31.0	45.0	14.0	1	61.0	68.0	7.0	1	61.0	83.0	22.0	0				0			
Haley	0				0				2	12.0	28.0	16.0	4	38.2	41.2	3.0	3	39.3	36.0	-3.3	2	39.0	31.0	-8.0	1	42.0	35.0	-7.0
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	11.0	23.0	12.0	1	1.0	1.0	0.0	0				0			
Herig	0				0				1	29.0	40.0	11.0	3	26.6	26.6	0.0	2	16.5	58.0	41.5	3	42.6	31.0	-11.6	1	44.0	32.0	-12.0
Houghton	0				0				2	29.0	45.0	16.0	0				2	21.0	22.0	1.0	1	36.0	28.0	-8.0	0			
Jerome	0				1	1.0	1.0	0.0	0				0				0				1	52.0	44.0	-8.0	1	42.0	36.0	-6.0
Jones	0				0				2	34.5	53.0	18.5	1	50.0	36.0	-14.0	0				0				1	34.0	36.0	2.0
Kempton	0				0				0				0				0				0				0			
Longfellow	0				2	29.0	40.0	11.0	4	43.5	47.5	4.0	1	1.0	30.0	29.0	2	32.0	44.5	12.5	0				2	36.0	36.5	0.5
Longstreet	0				1	24.0	35.0	11.0	1	24.0	29.0	5.0	2	53.0	44.5	-8.5	3	40.3	25.0	-15.3	2	52.5	37.0	-15.5	1	30.0	27.0	-3.0
Loomis	0				0				2	36.5	20.0	-16.5	8	38.3	32.5	-5.8	2	47.5	39.0	-8.5	4	35.7	42.0	6.3	1	26.0	20.0	-6.0
N. Park	1	20.0	24.0	4.0	0				1	1.0	48.0	47.0	0				2	33.0	39.0	6.0	0				0			
C. Miller	0				0				1	38.0	70.0	32.0	1	29.0	23.0	-6.0	1	28.0	28.0	0.0	2	41.0	35.0	-6.0	3	38.0	45.0	7.0
J. Moore	0				0				3	22.6	36.0	13.4	2	20.5	27.5	7.0	5	34.8	39.2	4.4	0				2	51.0	47.0	-4.0
Morley	0				0				0				0				0				1	65.0	61.0	-4.0	0			
J. Rouse	0				4	30.0	42.7	12.7	4	26.0	44.7	18.7	5	54.4	43.2	-11.2	1	28.0	1.0	-27.0	5	36.2	32.6	-3.6	2	44.0	33.0	-11.0
Selina	0				0				0				2	39.0	34.0	-5.0	0				0				0			
Stone	0				0				5	36.8	50.4	13.6	2	45.0	49.0	5.0	4	47.7	40.2	-7.5	3	42.6	39.0	-3.6	3	34.6	37.6	3.0
Webber El.	0				1	12.0	40.0	28.0	10	38.0	36.9	-1.1	2	43.5	37.0	-6.5	4	46.2	43.7	-2.5	7	39.8	34.5	-5.3	7	41.4	37.1	-4.3
Zilwaukee	0				0				1	45.0	29.0	-16.0	0				0				0				0			
TOTAL	1	20.0	24.0	4.0	9	23.8	36.3	12.5	46	34.2	39.6	5.4	43	38.1	36.3	-1.8	38	37.6	39.1	1.5	33	39.5	35.3	-4.2	29	40.2	38.3	-1.9

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Table C-11

Attainment Status For Migrant Pupils In Basic Skills Total Mathematics

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	-	1.0	-	0				0				0				1	50.0	52.0	2.0
Coulter	0				0				1	-	42.0	-	2	29.5	35.5	6.0	2	46.0	42.5	-3.5	1	32.0	27.0	-5.0	2	55.5	53.0	-2.5
Emerson	0				0				3	-	39.3	-	6	24.1	32.8	8.7	3	46.5	54.6	8.3	1	7.0	27.0	20.0	1	55.0	38.0	-17.0
Fuerbringer	0				0				2	-	19.0	-	1	34.0	40.0	6.0	1	42.0	62.0	20.0	0				0			
Haley	0				0				2	-	24.0	-	4	38.7	43.0	4.3	3	50.0	37.3	-12.7	2	41.5	29.0	-12.5	1	34.0	38.0	4.0
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	36.0	28.0	-8.0	1	28.0	19.0	-9.0	0				0			
Herig	0				0				1	-	48.0	-	3	27.6	37.3	9.7	2	36.0	63.0	27.0	3	48.3	46.0	-2.3	1	82.0	68.0	-14.0
Houghton	0				0				2	-	59.5	-	0				2	25.5	15.0	-10.5	2	35.0	31.0	-4.0	0			
Jerome	0				1	-	-	-	0				0				0				1	45.0	56.0	11.0	1	51.0	50.0	-1.0
Jones	0				0				2	-	62.5	-	1	9.0	34.0	25.0	0				0				1	53.0	43.0	-10.0
Kempton	0				0				0				0				0				0				0			
Longfellow	0				2	-	-	-	4	-	54.0	-	1	6.0	10.0	4.0	2	11.0	37.0	26.0	0				2	36.5	28.5	-8.0
Longstreet	0				1	-	-	-	1	-	12.0	-	2	21.0	25.5	4.5	4	18.5	18.2	-0.3	1	47.0	62.0	15.0	1	30.0	23.0	-7.0
Loomis	0				0				2	-	23.0	-	8	27.1	36.0	8.9	2	45.0	41.5	-3.5	4	40.7	37.7	-3.0	1	53.0	17.0	-36.0
M. Park	1	-	-	-	0				1	5.0	18.0	13.0	0				2	49.5	33.0	-16.5	0				0			
E. Miller	0				0				1	-	68.0	-	1	11.0	10.0	-1.0	1	43.0	40.0	-3.0	2	24.0	47.5	23.5	3	49.0	40.0	-9.0
J. Moore	0				0				3	27.0	33.6	6.6	2	21.5	20.5	-1.0	5	38.6	40.0	1.4	0				2	61.0	51.5	-9.5
Morley	0				0				0				0				0				1	81.0	68.0	-13.0	0			
J. Rouse	0				4	-	-	-	4	-	41.2	-	5	41.0	52.6	11.6	1	28.0	14.0	-14.0	5	44.2	35.0	-9.2	2	56.0	44.5	-11.5
Salina	0				0				0				3	24.0	32.5	8.5	0				0				0			
Stone	0				0				5	-	58.0	-	2	34.5	49.5	15.0	4	43.5	32.0	-11.5	3	36.0	40.6	4.6	3	42.0	42.6	0.6
Webber El.	0				1	-	-	-	12	-	31.0	-	2	32.5	28.0	-4.5	4	51.2	49.5	-1.7	7	47.1	30.7	-16.4	7	41.8	35.8	-6.0
Zilwaukee	0				0				1	-	32.0	-	0				0				0				0			
TOTAL	1	-	-	-	9	-	-	-	48	16.0	38.7	22.7	43	28.2	35.7	7.5	39	38.5	37.7	-0.8	33	42.6	38.0	-4.6	29	48.0	40.7	-7.3

Table C-12

Attainment Status For Migrant Pupils In Advanced Skills Mathematics Concepts And Applications .

	Grade K				Grade Jr. 1				Grade 1				Grade 2				Grade 3				Grade 4				Grade 5			
	Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents				Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
E. Baillie	0				0				1	25.0	1.0	-24.0	0				0				0				1	44.0	40.0	-4.0
Coulter	0				0				1	34.0	45.0	11.0	2	28.0	43.5	15.5	2	54.0	37.0	-17.0	1	27.0	28.0	1.0	2	58.0	49.0	-9.0
Emerson	0				0				3	47.3	42.6	-4.7	6	27.5	33.0	5.5	3	47.3	42.6	-4.7	1	1.0	13.0	12.0	1	44.0	47.0	3.0
Fuerbringer	0				0				2	39.0	20.0	-19.0	1	39.0	45.0	6.0	1	43.0	61.0	18.0	0				0			
Haley	0				0				2	24.5	25.5	1.0	4	42.2	40.0	-2.0	3	43.6	34.3	-9.3	2	35.5	28.5	-7.0	1	32.0	35.0	3.0
Handley	0				0				0				0				0				0				0			
Heavenrich	0				0				0				1	30.0	29.0	-1.0	1	29.0	21.0	-8.0	0				0			
Herig	0				0				1	42.0	52.0	10.0	3	25.0	38.6	13.6	2	19.0	63.5	44.5	3	46.6	52.6	6.0	1	75.0	80.0	5.0
Houghton	0				0				2	31.5	64.0	32.5	0				2	22.0	18.0	-4.0	2	16.5	28.5	12.0	0			
Jerome	0				1	1.0	16.0	15.0	0				0				0				1	35.0	50.0	15.0	1	36.0	48.0	12.0
Jones	0				0				2	35.5	51.5	16.0	1	13.0	31.0	18.0	0				0				1	50.0	35.0	-15.0
Kempton	0				0				0				0				0				0				0			
Longfellow	0				2	15.0	53.0	38.0	4	46.5	49.2	2.7	1	5.0	27.0	22.0	2	28.0	39.0	11.0	0				2	35.5	23.0	-12.5
Longstreet	0				1	13.0	24.0	11.0	1	17.0	20.0	3.0	2	40.5	32.0	-8.5	4	30.0	16.5	-13.5	1	44.0	57.0	13.0	1	35.0	26.0	-9.0
Loomis	0				0				2	33.0	34.5	1.5	8	34.1	40.1	6.0	2	43.0	34.5	-8.5	4	38.5	36.5	-2.0	1	48.0	26.0	-22.0
M. Park	1	28.0	32.0	4.0	0				1	5.0	39.0	34.0	0				2	45.0	12.0	-33.0	0				0			
C. Miller	0				0				1	42.0	49.0	7.0	1	5.0	9.0	4.0	1	38.0	30.0	-8.0	2	22.5	43.0	20.5	3	48.3	41.3	-7.0
J. Moore	0				0				3	33.3	38.0	4.7	2	20.0	24.5	4.5	5	42.8	33.6	-9.2	0				2	59.0	57.0	-2.0
Morley	0				0				0				0				0				1	73.0	59.0	-14.0	0			
J. Rouse	0				4	20.2	35.0	14.8	4	38.7	48.0	9.3	5	49.6	57.2	7.6	1	29.0	3.0	-26.0	5	37.8	36.6	-1.2	2	56.0	46.0	-10.0
Salina	0				0				0				2	33.0	38.0	5.0	0				0				0			
Stone	0				0				5	53.4	48.4	-8.0	2	45.5	47.0	1.5	4	45.2	25.7	-19.5	3	36.3	36.0	-0.3	3	40.0	38.6	-1.3
Webber El.	0				1	1.0	37.0	36.0	12	37.1	32.5	-4.6	2	36.0	30.5	-5.5	4	51.7	48.0	-3.7	7	36.7	34.0	2.7	7	37.7	33.1	-4.6
Zilwaukee	0				0				1	24.0	42.0	18.0	0				0				0				0			
TOTAL	1	28.0	32.0	4.0	9	14.0	35.8	21.8	48	37.7	39.6	1.9	43	33.2	38.6	5.4	39	39.8	32.8	-7.0	33	35.6	37.5	1.9	29	45.1	39.9	-5.2

APPENDIX C

Table C-13

Attainment Status For Migrant Pupils In Basic Skills Total Reading And Advanced Skills Reading Comprehension

Subject/ School	GRADE 6 Normal Curve Equivalents				GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL READING												
Central	0				4	27.7	24.2	-3.5	0			
North	7	44.5	34.5	-10.0	6	46.5	37.0	-9.5	0			
South	4	46.0	35.0	-11.0	7	38.8	32.7	-6.1	5	45.0	40.8	-4.2
Webber	9	36.5	33.4	-3.1	7	32.1	30.4	1.7	5	46.2	41.6	-4.6
System	20	41.2	34.1	-7.1	24	36.9	31.7	-5.2	10	45.6	41.2	-4.4
READING COMPREHENSION												
Central	0				4	32.0	29.0	-3.0	0			
North	7	45.1	37.2	-7.9	6	52.8	43.5	-9.3	0			
South	4	48.2	37.2	-11.0	7	42.8	35.0	-7.8	5	49.6	49.4	-0.2
Webber	9	40.1	32.1	-8.0	7	36.0	32.0	-4.0	5	43.2	43.0	-0.2
System	20	43.5	34.9	-8.6	24	41.5	35.2	-6.3	10	46.4	46.2	-0.2

APPENDIX C

Table C-14

Attainment Status For Migrant Pupils In Basic Skills Total Mathematics And Advanced Skills Mathematics Concepts And Applications

Subject/ School	GRADE 6 Normal Curve Equivalents				GRADE 7 Normal Curve Equivalents				GRADE 8 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS												
Central	0				4	33.7	37.5	3.8	0			
North	5	63.6	61.0	-2.6	5	47.8	46.4	-1.4	0			
South	4	47.5	38.0	-9.5	7	45.8	42.5	-3.3	4	45.5	44.5	-1.0
Webber	9	40.5	34.5	-6.0	7	36.5	22.5	-14.0	5	40.4	36.4	-4.0
System	18	48.5	42.6	-5.9	23	41.3	36.4	-4.9	9	42.6	40.0	-2.6
CONCEPTS AND APPLICATIONS												
Central	0				4	35.7	33.7	-2.0	0			
North	5	60.2	55.0	-5.2	5	42.0	45.8	3.8	0			
South	4	46.7	38.0	-8.7	7	45.5	38.0	-7.5	4	43.7	46.0	2.3
Webber	9	39.6	31.8	-7.8	7	37.4	20.4	-17.0	5	42.8	35.6	-7.2
System	18	46.9	39.6	-7.3	23	40.6	33.6	-7.0	9	43.2	40.2	-3.0

Table C-15

Attainment Status For Migrant Pupils In Basic Skills Total Reading And Advanced Skills Reading Comprehension

Subject/ School	GRADE 9 Normal Curve Equivalents				GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL READING																
Arthur Hill	5	33.0	29.2	-3.8	2	28.0	32.0	4.0	0				0			
Saginaw High	3	39.3	34.3	-5.0	6	32.0	29.0	-3.0	0				0			
System	8	35.3	31.1	-4.2	8	31.0	29.7	-1.3	0				0			
READING COMPREHENSION																
Arthur Hill	5	41.6	33.8	-7.8	2	26.0	35.0	9.0	0				0			
Saginaw High	3	37.6	30.3	-7.3	6	33.3	32.3	-1.0	0				0			
System	8	40.1	32.5	-7.6	8	31.5	33.0	1.5	0				0			

Table C-16

Attainment Status For State Bilingual Pupils In Basic Skills Total Mathematics and Advanced Skills Mathematics Concepts And Applications

Subject/ School	GRADE 9 Normal Curve Equivalents				GRADE 10 Normal Curve Equivalents				GRADE 11 Normal Curve Equivalents				GRADE 12 Normal Curve Equivalents			
	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss	Number Tested	Pre Mean	Post Mean	Mean Gain/ Loss
TOTAL MATHEMATICS																
Arthur Hill	5	50.0	51.4	1.4	3	37.5	33.0	-4.5	0				0			
Saginaw High	3	37.0	23.0	-14.0	6	34.0	29.1	-4.9	0				0			
System	8	45.1	40.7	-4.4	9	34.8	30.4	-4.4	0				0			
CONCEPTS AND APPLICATIONS																
Arthur Hill	5	51.8	52.2	0.2	3	29.6	39.0	9.4	0				0			
Saginaw High	3	33.3	16.6	-16.7	6	33.1	30.6	-2.5	0				0			
System	8	44.8	38.8	-6.0	9	32.0	33.4	1.4	0				0			